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TAXONOMIC NOTES CONCERNING ARVICANTHINE RODENTS[1]

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Study of the American Museum collections of African rodents has indicated the desirability of clarifying the nomenclatorial status of three forms of the genus *Pelomys* reported from the Kasai district of the Belgian Congo, and also of the naming of a new form of the striped grass-rat, *Lemniscomys*, occurring in the savannas of the upper Uele. These matters are here given attention preparatory to the completion of a full report on the rodents of the Congo represented in the collections obtained by the American Museum Congo Expedition.

LEMNISCOMYS

Specimens of the *Lemniscomys barbarus* group, obtained by the Congo Expedition at Faradje, may be sorted into what appear to me to be three natural groups whose principal diagnostic features compare as follows:

	A	B	C
Head-body length (approximate)	90	100	80
Tail length (approximate)	130	130	115
Foot length	25	25	23
Greatest skull length	27.5	27.2	26.7
Length upper molar row	4.8	5.1	4.6
Width M^1	1.6	1.8	1.6
General color	dark	pallid	dark
Facial stripes	present	absent	present
Pelage	hispid	very hispid	hispid
Number of adult specimens	15	2	3

The smallest of these three ("C") corresponds rather closely in its status as a distinct taxonomic unit to the smaller form of the *striatus* group (*akka*) occurring in the nearby forest. The pallid rat ("B") I probably would consider a pelage form of group "A" were it not that I find it corresponding very closely to the type of *L. dunni nubalis*, to which it was directly compared. I thus prefer to recognize three forms of the *barbarus* group in this region. That a more conservative person or one with a greater series of specimens than have been available to me might lump all three together as fortuitous variations of a single sub-

[1]Scientific results of the Congo Expedition, Mammalogy No. 16.

species, I readily admit, but such a procedure would, I believe, with the present evidence, but mask the simple assortment of characters as they have presented themselves and tend to smother rather than encourage further investigation of the problem of speciation or, it may be ecologic differentiation, in this region.

Specimens of each of these three groups were compared with types and other material in the British Museum. At that time I made the nominal assignments used in this paper, from which arrangement I have not had reason to diverge.

For the commonest form I have adopted *zebra* as the name on the single basis that it corresponds to the majority of specimens from the region so labelled in other museums. Heuglin's original description is inadequate for identification and I do not know of the existence of his type. As stated above the pallid form ("B") is recognized as *Lemniscomys dunni nubalis*. The dwarf form I here describe as a new subspecies.

Lemniscomys oweni orientalis, new subspecies

TYPE.—American Museum of Natural History, No. 49626. Congo Expedition Collection No. 1531. Male adult. Collected at Faradje, Belgian Congo, March 16, 1911, by Herbert Lang. The type is a study skin, accompanied by a skull in good condition. Its molars are much worn.

PARATYPES.—American Museum of Natural History, No. 49611, adult male, topotype, collected February 20, 1911, by Mr. Lang; and American Museum No. 2150, adult male, collected at Tingasi, July 15, 1883, by Emin Pasha.

GENERAL CHARACTER.—A small representative of the *barbarus* group related apparently to the Gambian *L. oweni*, from which it differs in possessing a slightly smaller and narrower skull and darker color. From *L. b. zebra*, which is common at the type locality of this new subspecies, it differs conspicuously only in size. From *L. dunni nubalis*, also represented at the same locality, it is easily distinguished on the basis of its smaller size and darker color.

DESCRIPTION.—The median dorsal stripe is blackish, ticked with buffy. Its course is clearly marked from the middle of the crown to the tail base. In the lumbar region it attains its greatest width (2.8 mm.) although this is little more than its width at any point behind the level of the ears. The six pairs of lateral dark stripes are distinctly split by secondary light stripes. These lighten progressively to the pure white abdomen. Two pairs of light stripes may be distinguished above the eyes, the lower of them joining the buffy eye ring. The ears are well haired and a bright Cinnamon in color. Fore and hind feet are Cinnamon Buff.

MEASUREMENTS.—Collector's measurements, taken in the flesh: total length, 196 mm.; tail length, 114; length of hind foot, with claw, 23; height of ear, 15. Skull measurements : greatest length, 26.7; condylobasal length, 24.1; greatest skull height, 10.3; zygomatic breadth, 12.5; interorbital breadth, 4.3; breadth of brain case, 11.6; palatilar length, 10.8; length palatal foramina, 5.5; width of palate across M^1, 5.7; alveolar length upper tooth row, 4.7; crown length upper tooth row, 4.6; width M^1, 1.6; condylo-incisive length of mandible, 16.5.

PELOMYS

Specimens collected by the Reverend Richard Callewaert at Luluabourg, Kasai District, Belgian Congo, are known to have been acquired by the British Museum, the National Museum at Madrid, the Congo Museum, the Natural History Museum at Basel, the Berlin Museum, and The American Museum of Natural History. The first published account of the arvicanthine rats of the genus *Pelomys* contained in the Callewaert collections was that of Cabrera and Ruxton (1926, Ann. and Mag. Nat. Hist., (9), XVII, p. 601) on the London and Madrid series, in which *Pelomys minor* was described as new and the remaining series of seventeen specimens, containing two well-marked species (as I have ascertained by personal examination), assigned to *Pelomys campanae* (Huet). Matschie had in manuscript, at the time of his death, a paper on a part of the Basel series in which he described as new the mice already made known under the name of *Pelomys minor*. Matschie's manuscript was published (1926, Zeitschr. f. Säugetierkunde, Bd. 1, p. 114) but his new name for this species was editorially deleted and "*Komemys minor* Cabr. et Ruxt." substituted. There was published, however, in this same paper, the description of *Pelomys luluae* Matschie. It seemed to me that this was a composite description of the two larger *Pelomys* occurring at Luluabourg and that Matschie also had failed to recognize the presence of two species. Since Matschie named no type in his description, I inquired of Dr. Jean Roux of Basel concerning the specimens on which the description was based. Of the four listed in the description, one, No. 3941 (skull No. 7827), a male, taken June 8, 1923, was returned to Basel, bearing a red tag indicative that it was the type. The three other specimens were retained in the Berlin Museum.

It chances that though the two species in question have skulls that are strikingly different (but one of the British Museum series had been cleaned) they bear great resemblance externally, except for one feature, the basal color of the belly hairs. In one form the hairs are white to their bases, in the other white at the tip, gray at the base. Before specimens could be correctly named it remained to ascertain the color of the hair in the types of the various nominal species.

Huet, in describing *Mus campanae*, mentioned specimens in the Paris Museum. In 1933 with the kind guidance of Dr. Rode, I found two mounted specimens on exhibition (since removed) each labelled the type of *Mus campanae*. In each of these (Nos. 1112 and 1113) the hairs of the underside were completely white. Skulls could not be found.[1]

[1]On the base of No. 1113 was the following inscription: "Pere Campana, Landana, ♂. Envoi 9 Nov. 1887 Mus campanae. C.g. 1888, No. 1. J. Huet."

The type of *Pelomys luluae* Matschie has the hairs of the undersurface gray at their base, as Dr. Roux has determined for me. This then is not a synonym of *P. campanae* (Huet).

The nomenclature of these "mud rats" of the Kasai as I view them should then be as follows:

1.—*Pelomys campanae* (Huet)

Head and body length about 140 mm. Belly hairs completely white. Dorsal stripe usually faint. Diameter of M^1 about 2.0 mm. Cranially this species resembles *Pelomys fallax* more than do the other two species considered.

2.—*Pelomys luluae* Matschie

Head and body length about 150 mm. Belly hairs white at tips, gray at base. Dorsal stripe absent. Diameter of M^1 about 2.3 mm. In external appearance this form is nearer *P. fallax* than are the other two, but its broad teeth and expanded nasals separate it clearly from that species.

3.—*Pelomys* (*Komemys*) *minor* Cabrera and Ruxton

Head and body length about 125 mm. Belly hairs white, gray at base. Dorsal stripe clearly defined. In the clear definition of the dorsal stripe and the shorter fifth digit of the posterior limb, this species approaches *Komemys* which cannot at best be considered more than a subgenus.

It is interesting to note that Father Callewaert or his native collectors distinguished *Pelomys minor* as distinct, calling it under the name "Ngonga," but did not distinguish by name two species among the remaining *Pelomys*, both being called "Ditapa."